

Code of Maryland Regulations

Title 15 DEPARTMENT OF AGRICULTURE

Subtitle 18 STATE CHEMIST

**Chapter 04 Compost**

Authority: Agriculture Article, Title 6, Subtitle 2, Annotated Code of Maryland

**.01 Definitions.**

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

- (1) "Agricultural land" means land cultivated for the production of crops or used for raising livestock.
- (2) "Agricultural operation" means any farming operation devoted to the production for sale of crops or animals, including, but not limited to, fruits, vegetables, meat, poultry and dairy products, nuts, tobacco, aquaculture, nursery and floral products, and trees.
- (3) "Brand" means the term, design, trademark, or other specific designation under which a compost product is distributed in the State.
- (4) "Certified operator" means an owner, operator, or employee of a composting facility who is certified by the Secretary under this chapter.
- (5) "Compost" means a stabilized organic product produced by the controlled aerobic decomposition process in such a manner that the product may be handled, stored, and applied to the land or used as a soil conditioner in an environmentally acceptable manner without adversely affecting plant growth.
- (6) "Compostable" means any biological material capable of being aerobically decomposed into compost.
- (7) "Composting" is the aerobic degradation of organic matter to make compost.
- (8) "Composting facility" means a facility where solid waste or organic material is processed using composting technology, including:
  - (a) Physical turning;
  - (b) Windrowing; and
  - (c) Aeration or other mechanical handling of organic matter.
- (9) "Department" means the Maryland Department of Agriculture.
- (10) "Distribute" means to import, manufacture, produce, compound, mix, blend, barter, sell, offer for sale, consign, furnish, provide, or otherwise supply compost as part of a commercial enterprise.

(11) "Industrial sludge" means the accumulated semiliquid suspension, settled, or dried residue of solids deposited as a by-product of an industrial process and which is claimed to have value in promoting plant growth or improving the soil.

(12) "Label" means the display of all written, printed, or graphic matter on the immediate container or a statement accompanying a compost product.

(13) "Labeling" means all written, printed, or graphic matter on or accompanying any compost product or the contents of any advertisement, brochure, poster, or television or radio announcement used in promoting the sale of a compost product.

(14) "Lot" means a definite quantity of a compost product by name, classification, or code designation as registered by the Secretary for distribution.

(15) "Manure" means a solid waste composed of excreta of livestock, and residual materials that have been used for bedding, sanitary, or feeding purposes for animals.

(16) Marginal Land.

(a) "Marginal land" means land where the soil characteristics do not support normal vegetative growth over time.

(b) "Marginal land" includes, but is not limited to, land abandoned due to mineral extraction, strip mine areas, areas where topsoil has been removed, fill areas with poor soil characteristics, or landfills with poor topsoil.

(17) "Mulch" means any material or product, with at least 50 percent of its volume composed of particles 1/2 inch or larger in size, that is distributed for primary use on the soil surface or around plants as decoration or as a protective covering to reduce moisture loss, control weeds, prevent erosion, reduce temperature changes, or similar purposes relating to the soil.

(18) "Organic" means any natural biological substance of plant or animal origin that is capable of microbial degradation.

(19) "Origin" means the original physical source of the compostable material.

(20) "Person" includes the State, any county, municipal corporation, or other political subdivision of the State, or any of their units, or an individual, receiver, trustee, guardian, executor, administrator, fiduciary or representative of any kind, or any partnership, firm, association, public or private corporation, or any other entity unless otherwise provided.

(21) "PFRP" means process to further reduce pathogens, as provided by COMAR 26.04.06.

(22) "Registrant" means a person who registers a compost product pursuant to the provisions of this chapter.

(23) "Secretary" means the Secretary of Agriculture or a designated representative.

(24) "Septage" means the liquid and solid material pumped or removed from chemical toilets, septic tanks, seepage pits, privies, cesspools, or holding tanks when the system is cleaned and maintained.

(25) "Sewage sludge" means the accumulated semiliquid suspension, settled solids, or dried residue of these solids that is deposited from sewage in a wastewater treatment plant, whether or not these solids have undergone treatment.

(26) Soil Conditioner.

(a) "Soil conditioner" means any substance or mixture of substances, except a commercial fertilizer, unmanipulated animal and vegetable manures, agricultural liming material, or gypsum, intended for sale, offered for sale, or sold for:

- (i) Manurial, soil enriching, or soil corrective purposes;
- (ii) Promoting or stimulating the growth of plants;
- (iii) Increasing the productivity of plants;
- (iv) Improving the quality of crops; or
- (v) Producing any chemical or physical change in the soil.

(b) "Soil conditioner" includes, but is not limited to, materials such as compost, peat, vermiculite, or perlite, that are incorporated into the soil.

(27) Solid Waste.

(a) "Solid waste" means any garbage, refuse, sludge, or liquid from industrial, commercial, mining, or agricultural operations or from community activities.

(b) "Solid waste" includes scrap tires and organic compostable materials, but does not include solid or dissolved material in domestic sewage or in irrigation return flows or compost as defined in this chapter.

(28) "Stabilized compost" means any compost that has ceased active biological decomposition, that is, the temperature of a 4-foot-high, 6-foot-diameter pile of compost may not rise more than 20°C above ambient temperature when the pile is left undisturbed for 72 hours at the composting facility.

(29) "Yard waste" means organic plant waste derived from gardening, landscaping, and tree trimming activities, and includes leaves, garden waste, lawn cuttings, weeds, and tree prunings.

## **.02 Registration of Compost.**

### **A. Registration.**

(1) Except as provided by this regulation, a person shall register with the Department each brand or classification of compost before the compost is sold or distributed within the State.

(2) A person applying for registration shall submit the following information to the Department:

- (a) A completed registration application form provided by the Department;

(b) A copy of the product label and any other labeling describing the product; and

(c) The registration fee of \$15 for each brand or classification in bulk or in a package of more than 10 pounds, or \$30 for each brand or product in a package of 10 pounds or less.

(3) The following compost products are not subject to registration or regulation under this chapter:

(a) Compost produced on a residential property by the owner or tenant for noncommercial use;

(b) Compost from normal farm operations, not for sale or distribution, for use only on an owner's farm or leased farm as a part of an agronomic, horticultural, or silvicultural operation;

(c) Compost produced by a government agency to be given without charge to a person or for use by that agency on land that the agency owns or manages; or

(d) Any product from solid waste that is composted merely to reduce the product's volume before disposal as a solid waste.

#### B. Registration Renewal.

(1) By February 1 of each year, a registrant shall renew the registration with the Department for each brand or classification of compost distributed.

(2) A person shall apply for renewal of a registration by submitting the following information to the Department:

(a) A completed registration renewal application form provided by the Department;

(b) A copy of the product label, and any other printed materials describing the product, if the label has been altered or changed since the product was last registered, or if 5 years have passed since the product label was last submitted to the Department with the registration renewal application; and

(c) A registration fee of \$15 for each compost brand or classification in bulk or in a package of more than 10 pounds, or \$30 for each brand or product in a package of 10 pounds or less.

C. Proof of Claim. The Department may require a registrant to provide proof of any claim made on the registration application, the product label or labeling, or any other claim.

#### **.03 Operator Certification Requirement.**

A. Each composting facility regulated by this chapter shall operate under the supervision of a certified operator.

B. Certification. A person shall apply for certification as a composting facility operator by:

(1) Applying to the Department on a departmental form; and

(2) Demonstrating proof of practical and scientific knowledge of composting by passing a written examination given by the Department.

C. Recertification. A person shall apply for renewal by:

(1) Applying to the Department;

(2) Demonstrating satisfactory knowledge of composting by attending during the period of certification at least one training course approved by the Department or by reexamination; and

(3) Complying with all other requirements of this chapter.

D. A composting facility operator certificate is valid for 3 years beginning January 1, or whenever obtained, until December 31 of the third year of certification.

E. Examination.

(1) Each applicant for certification shall pass a written examination given by the Department.

(2) The Department shall give the examination at least twice a year.

(3) The Department may provide either the required training or a list of study materials before any examination is given.

(4) To apply for the examination to be certified as a composting facility operator, an applicant shall file with the Department at least 15 days before any announced examination an application on the form the Department requires.

#### **.04 Composting Facility Operator Requirements.**

A. A composting facility certified operator is responsible for complying with the requirements of this regulation when operating a composting facility.

B. For a composting facility receiving only agricultural or yard waste the following is required:

(1) Stabilized compost, or any compost product to be distributed from the facility, shall be tested by the operator each quarter, or once every 20,000 tons of compost, whichever is more frequent, for each parameter listed in Table 1 of Regulation .11 of this chapter, using a method acceptable to the Department;

(2) If the compost test results are within the testing limits set forth in Regulation .05A of this chapter during the first year of operation, then the operator may test only once a year, provided the test results remain within the limits set forth in Regulation .05A of this chapter;

(3) An alternative testing schedule may be approved by the Secretary, provided the operator demonstrates that the alternative testing schedule will provide at least equivalent protection to the public and to the environment;

(4) The operator shall make test results available to the Department for inspection during the facility's normal hours of operation.

C. For a composting facility receiving solid waste other than only agricultural or yard waste the following is required:

(1) The certified operator of a solid waste composting facility shall develop a quality assurance or quality control plan approved by the Department that describes monitoring, sampling, and analysis plans for testing the composting process and product to be distributed;

(2) The Department shall determine and the operator shall follow an appropriate monitoring and sampling schedule for the 15-month initial start-up period for any new facility;

(3) Using information gained during the start-up period, a monitoring and sampling schedule for ongoing operations shall be developed by the operator with the Department, based on statistical methods for quality assurance.

D. Samples of compost to be distributed shall be obtained by the operator in accordance with a plan approved by the Department. Samples of the compost produced at the facility shall be analyzed by the operator for each parameter listed in Table 1 of Regulation .11 of this chapter using a method acceptable to the Department.

E. Results of laboratory analysis for each parameter specified in Table 1 of Regulation .11 of this chapter shall be recorded by the operator and kept for 2 years at the facility and shall be available to the Department, upon request.

F. The Department may decrease or increase the parameters to be analyzed, or the frequency of analysis, based on monitoring data, changes in the waste stream or processing, or the potential presence of toxic substances.

G. The Secretary may conduct periodic sampling, without charge, and testing of any compost product to be distributed to determine if it complies with the requirements of this chapter.

H. The Secretary may establish additional limits on any classification of compost or any specific product if it is found that the compost contains a chemical or physical component that can cause unreasonable adverse effects to humans, animals, plants, or the environment.

#### **.05 Compost Classification.**

A. A compost product is classified as a General Use, Limited Use, or Restricted Use compost as shown in §§B—D of this regulation.

##### **B. General Use Compost.**

(1) General Use compost may not exceed the following specifications:

<i>Parameter</i>	<i>Parameter Limit All limits apply to product leaving composting facility.</i>
(a) pH (range)	6.0—8.0
(b) Heavy metals (maximum)	
(i) Arsenic	41 mg/kg dry wt.
(ii) Cadmium	39 mg/kg dry wt.
(iii) Chromium	1200 mg/kg dry wt.
(iv) Copper	1500 mg/kg dry wt.
(v) Lead	300 mg/kg dry wt.
(vi) Mercury	17 mg/kg dry wt.

(vii) Molybdenum	18 mg/kg dry wt.
(viii) Nickel	420 mg/kg dry wt.
(ix) Selenium	36 mg/kg dry wt.
(x) Zinc	2800 mg/kg dry wt.
(c) PCBs	5 ppm
(d) Man-made inerts (maximum) >4mm, <13mm	2 percent dry wt.
(e) Film plastic >4mm	2 percent dry wt.
(f) Process to further reduce pathogens (required for compost from municipal solid waste or manure)	pass

(2) A General Use compost:

(a) Shall pass through a 12mm (1/2 inch) screen;

(b) Shall be stabilized;

(c) May not have an objectionable odor; and

(d) May be distributed as a soil conditioner for use by the general public or for any use allowed by this chapter.

C. Limited Use Compost.

(1) A Limited Use compost may not exceed the following specifications:

<i>Parameter</i>	<i>Parameter Limit</i> <i>All limits apply to</i> <i>product leaving</i> <i>composting facility.</i>
(a) pH (range)	6.0—8.0
(b) Heavy metals (maximum)	
(i) Arsenic	41 mg/kg dry wt.
(ii) Cadmium	39 mg/kg dry wt.
(iii) Chromium	1200 mg/kg dry wt.
(iv) Copper	1500 mg/kg dry wt.
(v) Lead	300 mg/kg dry wt.
(vi) Mercury	17 mg/kg dry wt.
(vii) Molybdenum	18 mg/kg dry wt.
(viii) Nickel	420 mg/kg dry wt.
(ix) Selenium	36 mg/kg dry wt.
(x) Zinc	2800 mg/kg dry wt.
(c) PCBs	10 ppm
(d) Man-made inerts (maximum) >4mm	4 percent dry wt.
(e) Film plastic >4mm	2 percent dry wt.
(f) Process to further reduce	pass

pathogens (required for compost from municipal solid waste or manure)	
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(2) A Limited Use compost:

- (a) Shall pass through an 18mm (3/4 inch) screen;
- (b) Shall be stabilized;
- (c) May not have an objectionable odor; and
- (d) May only be distributed for use by a commercial, agricultural, institutional, or governmental operation, or for restricted use as provided by this chapter.

D. Restricted Use Compost:

(1) A Restricted Use compost may not exceed the indicated maximum level for any heavy metal or trace element, as follows:

(a) Arsenic	75 mg/kg dry wt.
(b) Cadmium	85 mg/kg dry wt.
(c) Chromium	3000 mg/kg dry wt.
(d) Copper	4300 mg/kg dry wt.
(e) Lead	840 mg/kg dry wt.
(f) Mercury	57 mg/kg dry wt.
(g) Molybdenum	75 mg/kg dry wt.
(h) Nickel	420 mg/kg dry wt.
(i) Selenium	100 mg/kg dry wt.
(j) Zinc	7500 mg/kg dry wt.

(2) A Restricted Use compost:

- (a) May not be a hazardous waste, as defined in COMAR 26.13.02.03;
- (b) May not be stockpiled or disposed of unless authorized by the Maryland Department of the Environment;
- (c) May not be distributed or sold to the general public;
- (d) Is restricted to distribution for use as a final, intermediate, or alternate daily landfill cover, as provided by COMAR 26.04.07, or on marginal land or in land reclamation efforts if applied at rates not to exceed limits established in Table 2 of Regulation .12 of this chapter; and
- (e) Includes any compost exceeding any parameter limit for Limited Use compost, as provided in Regulation .05C of this chapter, or any compost designated by the registrant as Restricted Use classification.

**.06 Compost Labeling.**



A. A person who manufactures or distributes a package or container of compost subject to this chapter is responsible for labeling the package or container with the following information:

- (1) Net weight or volume;
- (2) Brand under which the compost is distributed;
- (3) Classification of compost;
- (4) Manufacturer's name and complete address; and
- (5) Origin.

B. A person who manufactures or distributes for bulk sale any compost subject to this chapter shall have a label or have labeling with information required in §A of this regulation. A manufacturer or distributor shall make any label or labeling information available to the Department, upon request.

C. Each lot of bulk compost offered for sale or distribution by a person shall be identified by that person by a legible sign containing at least the following:

- (1) Brand name; and
- (2) Classification of compost.

D. A person who manufactures a compost produced from materials containing an industrial sludge is responsible for labeling the product indicating the origin of the industrial sludge.

E. A person who distributes a compost is responsible for the label or labeling or providing on a written invoice or shipping statement, if the compost is offered for bulk distribution, information indicating recommended uses, application rates, and use restrictions, if any, for the compost product, including information stating that:

- (1) Compost classified as General Use may be used by the general public as a mulch, soil conditioner, or topsoil substitute;
- (2) Compost classified as Limited Use is limited for use as follows:
  - (a) Only for use by a commercial, agricultural, institutional, or governmental operation,
  - (b) Only for use where contact by the general public is unlikely,
  - (c) On agricultural land when repeated applications occur to a site, the total amount of any heavy metal applied per acre per year to that site may not exceed 1/10 the maximum cumulative loading for that metal listed in Regulation .12 of this chapter, and
  - (d) The total amount of any heavy metal applied per acre cumulatively to a site may not exceed the maximum amount for that metal listed in Table 2 of Regulation .12 of this chapter;
- (3) Compost classified as Restricted Use is restricted for use as follows:

(a) Only for use as a landfill cover, on marginal land or in land reclamation efforts, provided that the maximum total amount of each heavy metal that is applied does not exceed the cumulative loading limit for that metal as listed in Regulation .12 of this chapter,

(b) Only for use where there will be no contact by the general public with the compost, and

(c) Not for use by the general public.

#### **.07 Compost Tonnage Reporting.**

##### **A. Tonnage Reporting Statement.**

(1) The registrant of each compost product shall submit to the Department:

(a) A semiannual written statement of the tonnage for each brand or classification of compost distributed in this State; and

(b) An inspection fee of 25 cents for each ton distributed.

(2) This statement and inspection fee shall include each sale for the periods of January 1 through June 30 and July 1 through December 31 of each year.

B. Failure to File Statement or Pay Fee. If a registrant fails to file a tonnage report and the inspection fee is not paid within 31 days after the end of the semiannual period, a collection fee amounting to 10 percent of the amount, or a minimum of \$10, may be assessed against the registrant. The amount of fees due constitute a debt and may become the basis of a judgment against the registrant.

#### **.08 Record-Keeping Requirements.**

A. A registrant or facility operator who distributes compost shall maintain complete records for 2 years for each lot of compost distributed.

B. Records shall have the following information:

(1) Source, type, and quantity of compostable received;

(2) Quantity and type of waste or compostable processed into compost;

(3) Quantity and classification of compost produced, by product classification;

(4) Quantity and classification of compost distributed, by product classification; and

(5) Analytical results of compost testing.

C. A registrant who distributes in bulk a Limited Use or Restricted Use compost product for application to soil on a site where repeated use of any compost is expected to occur shall:

(1) Maintain for 10 years application records for each lot of compost product applied to that site; and

(2) Document cumulative loading of each heavy metal listed in Regulation .12 of this chapter applied to that site.

#### **.09 Inspection Procedures.**

A. The Department or a designee may examine records, and may inspect and sample without charge any compost or compost product of any producer or distributor to determine if the records or compost complies with the requirements of this chapter.

B. A sample or lot found by the Department not to be in conformity with the regulations in this chapter or with the Maryland Commercial Fertilizer Law shall be subject to a penalty or a stop-sale order. The Department shall issue a written notice of the violation.

C. The Department may inspect any load of compostable material or compost for hazardous or noncompostable material.

#### **.10 Refusal or Cancellation of Registration.**

The Secretary may refuse to register or may revoke any registration for a brand or classification of compost, or the certificate of a person, that does not comply with the requirements of this chapter or with the requirements of the Maryland Commercial Fertilizer Law.

#### **.11 Table 1. Compost Quality Parameters.**

<i>Parameter</i>	<i>Unit</i>
A. pH	Standard units
B. Regulated trace metals or inorganic pollutants:	
(1) Arsenic (As)	mg/kg dry wt.
(2) Cadmium (Cd)	mg/kg dry wt.
(3) Chromium (Cr)	mg/kg dry wt.
(4) Copper (Cu)	mg/kg dry wt.
(5) Lead (Pb)	mg/kg dry wt.
(6) Mercury (Hg)	mg/kg dry wt.
(7) Molybdenum (Mo)	mg/kg dry wt.
(8) Nickel (Ni)	mg/kg dry wt.
(9) Selenium (Se)	mg/kg dry wt.
(10) Zinc (Zn)	mg/kg dry wt.
C. Polychlorinated biphenyls (PCBs)	mg/kg dry wt.
D. Man-made inerts >4mm, 13mm	percent dry wt.
E. Film plastic >4mm	percent dry wt.

#### **.12 Table 2. Compost Cumulative Loading Limits (Maximum).**

<i>Regulated Heavy Metal</i>	<i>Cumulative Loading<sup>a,b</sup></i>
A. Arsenic	37 lbs/acre
B. Cadmium	35 lbs/acre

C. Chromium	2,680 lbs/acres
D. Copper	1,340 lbs/acre
E. Lead	270 lbs/acre
F. Mercury	15 lbs/acre
G. Molybdenum	16 lbs/acre
H. Nickel	375 lbs/acre
I. Selenium	90 lbs/acre
J. Zinc	2,500 lbs/acre

- (a) This is the maximum sum of all prior loadings to the soil.
- (b) Compost shall have a pH greater than or equal to 5.5.